

DEPARTMENT of ENVIRONMENTAL SERVICES  
Water Division - Watershed Management Bureau

LAKE TROPHIC DATA

MORPHOMETRIC:

Lake: DUBES POND	Lake Area (ha):	31.77
Town: HOOKSETT	Maximum depth (m):	2.7
County: Merrimack	Mean depth (m):	1.0
River Basin: Merrimack	Volume (m <sup>3</sup> ):	304750
Latitude: 43°04'15" N	Relative depth:	0.4
Longitude: 71°24'00" W	Shore configuration:	1.75
Elevation (ft): 425	Areal water load (m/yr):	25.19
Shore length (m): 3500	Flushing rate (yr <sup>-1</sup> ):	26.30
Watershed area (ha): 1576.6	P retention coeff.:	0.45
% watershed ponded: 1.4	Lake type:	artificial

<u>BIOLOGICAL:</u>	12 January 2001	21 June 2000
DOM. PHYTOPLANKTON (% TOTAL) #1	PHACUS 50%	ASTERIONELLA 32%
#2	ASTERIONELLA 15%	MALLOMONAS 27%
#3	OSCILLATORIA 10%	SYNURA 19%
PHYTOPLANKTON ABUNDANCE (units/mL)		
CHLOROPHYLL-A (µg/L)		6.90
DOM. ZOOPLANKTON (% TOTAL) #1	KELICOTTIA 50%	NAUPLIUS LARVA 56%
#2	KERATELLA 26%	KERATELLA 15%
#3	ROTIFER SPP 26%	CALANOID COPEPOD 8%
ROTIFERS/LITER	78	28
MICROCRUSTACEA/LITER	<1	84
ZOOPLANKTON ABUNDANCE (#/L)	78	119
VASCULAR PLANT ABUNDANCE		Very abundant
SECCHI DISK TRANSPARENCY (m)		1.3
BOTTOM DISSOLVED OXYGEN (mg/L)	2.5	2.2
BACTERIA (E. coli, #/100 ml) #1		
#2		
#3		

SUMMER THERMAL STRATIFICATION:

not stratified

Depth of thermocline (m): None  
Hypolimnion volume (m<sup>3</sup>) : None  
Anoxic volume (m<sup>3</sup>) : None

**CHEMICAL:**Lake: DUBES POND  
Town: HOOKSETT

	12 January 2001		21 June 2000		
DEPTH (m)	1.5		1.0		2.0
pH (units)	5.0		5.0		4.9
A.N.C. (Alkalinity)	0.5		0.2		0.2
NITRATE NITROGEN	< 0.05		< 0.05		< 0.05
TOTAL KJELDAHL NITROGEN			0.54		0.51
TOTAL PHOSPHORUS	0.014		0.013		0.014
CONDUCTIVITY ( $\mu$ mhos/cm)	41.8		33.5		33.7
APPARENT COLOR (cpu)	110		80		80
MAGNESIUM			0.32		
CALCIUM			1.2		
SODIUM			3.0		
POTASSIUM			< 0.40		
CHLORIDE	4		4		4
SULFATE	6		4		4
TN : TP			42		36
CALCITE SATURATION INDEX					

All results in mg/L unless indicated otherwise

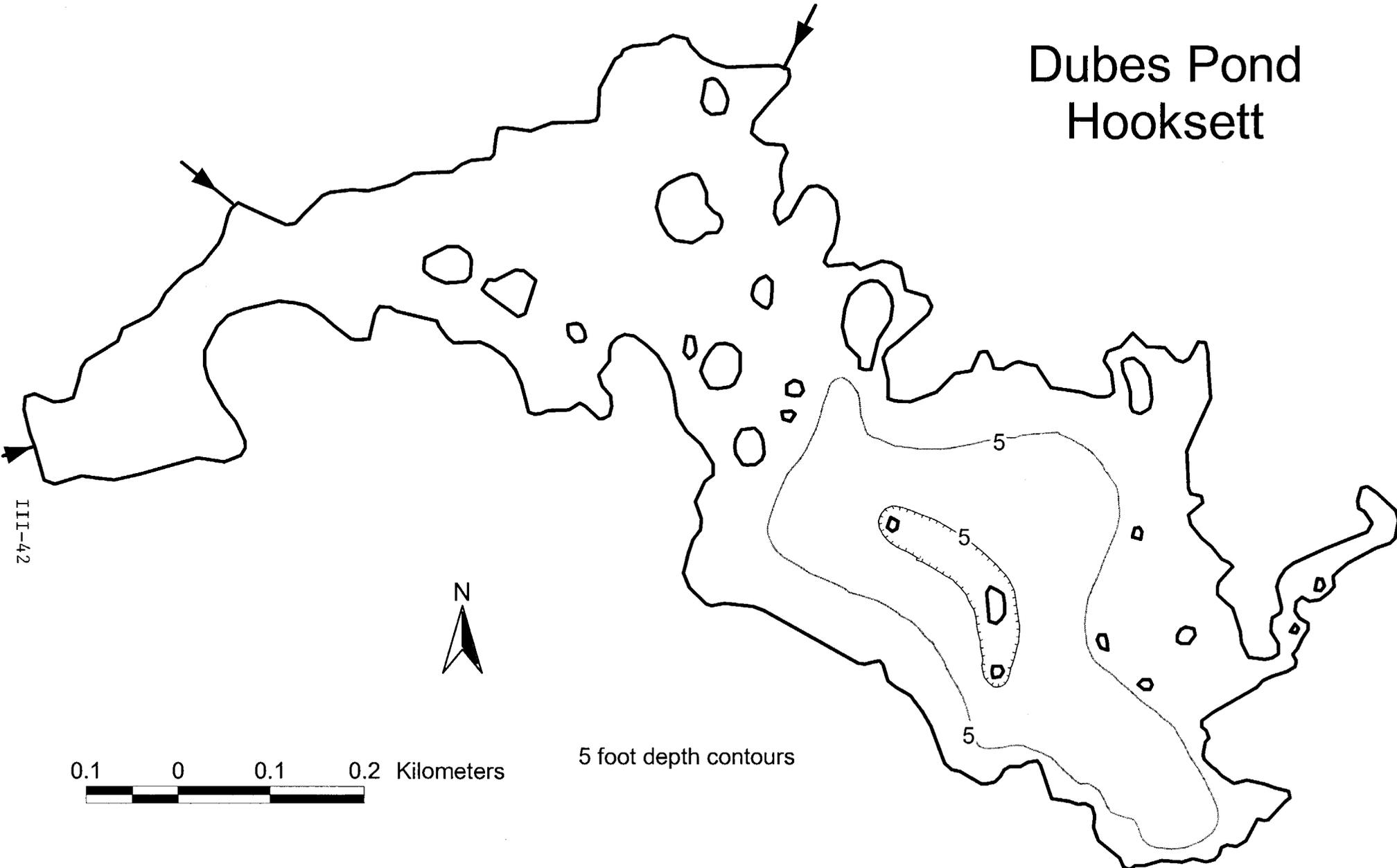
**TROPHIC CLASSIFICATION: 2000**

D.O.	S.D.	PLANT	CHL	TOTAL	CLASS
**	4	6	1	11	Eutro.

**COMMENTS:**

1. Previously called Sawyer Pond.
2. This is a private man-made pond; no public access.
3. This is a shallow, dark tea-colored, acidic, eutrophic pond with very abundant rooted plant growth. Much of the pond was more wetland than pond, a common occurrence in shallow, man-made ponds.
4. Mostly undeveloped shoreline; the only development was near the dam.

# Dubes Pond Hooksett



III-42



0.1 0 0.1 0.2 Kilometers

5 foot depth contours





